



The MINUTEMAN

Official Newsletter of the Minuteman Repeater Association

Volume 17, Number 1

September 1988

The Presidents Column

Ralph McNall, WB2DCL

Well, they keep telling me I'm President. For the record, your new Vice-President is Andrew Morrison, N1BHI. Andy is also Trustee of 146.61 Marlboro repeater and the 223.94 Hopkinton repeater. Frank Morrison, KB1FZ, Robert Fraser, K1PBL, and Barrie Brozenske, K3BUZ were re-elected as Secretary, Treasurer, and Clerk respectively.

Thomas Holmes, WA1ZID, was elected to fill out Andy's remaining term as a Director. Tom is also trustee of the 224.40 Quincy repeater. Alan Kunian, KA1AL, was re-elected as a Director for the next two years. Al is trustee of the 146.82 Weston repeater. Joseph Reinhardt, AF2J, was elected to the other two-year Director position. Scott Bullock, KA1CLX, has one year remaining in his two-year position as a Director. Salty, KI1AO, has agreed to continued his involvement over the coming year as an honorary (5th) Director and Trustee of the 146.67 Quincy repeater.

Finally, I want to thank Salty for his years of fine hard work as MMRA's president. I also want to thank the other Officers, Directors, and Trustees for their commitment to the Association for the coming year.

FCC Reallocation of 220 MHz Band — Good, Bad, or Indifferent?

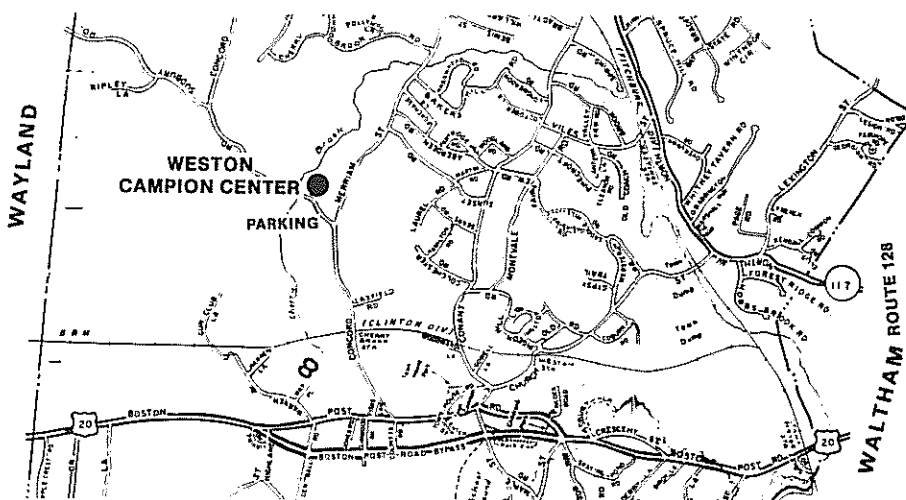
By now most if not every MMRA member has heard that the FCC will be reallocating the 220 MHz band. In case you haven't, what the FCC has done is to adopt a Report and Order in General Docket 87-14, the proposal to reallocate 220-222 MHz band to Land Mobile service using ACSB technology.

At first this may appear to be all bad. But it is not, there is some good to come out of it. In particular, the remaining 3 MHz of the band, 222-225 MHz, would become available to Amateurs on an exclusive basis, thus removing the cloud of possible secondary or, at best, equal shared usage status that has existed for years.

September Meeting to be held at the Campion Center in Weston

— 7:00 PM, Wednesday, September 14, 1988 —

MMRA Budget for 1988/89 and Planning Meeting for the Coming Year



Your Chance to Influence How Your Dues Will Be Used!

On the other hand it is also not all good. In particular, they will be reallocating 2 MHz of spectrum that has seen increasing use for high-speed digital communication links. Not all of these links can be readily moved to other bands because of bandwidth and propagation considerations. And with the 222.32-224.98 repeater sub-band quickly saturating, at least in the New England area, relocating these links above 222 MHz may not be practical.

Our more recently acquired 900 MHz band is an alternative for those links for which line-of-sight propagation is not a problem. However, the word is that even that band may be feeling spectrum utilization pressure (from the cellular-phone industry). Accordingly, the one thing we cannot afford to be is indifferent. Nor will being overly emotional about the situation help.

So what can and should you do. Write the FCC. But more importantly, write or call your Congressional Representative and Senators. Ask them to support Amateur Radio. Cite some of the accomplishments of Amateur Radio. Especially any that may have directly benefited their district. Point out our need to retain some spectrum below 222 MHz for the digital communication links that have become increasingly important to the level and quality of emergency communication we can provide.

Suggest a potential alternative such as reallocating 219-221 MHz or 2 MHz at 420 MHz. We've already lost 420-430 along the Canadian border and have only restricted use in other areas. Also, question why manufacturers were advertising 220 MHz ACSB equipment months before the FCC ruling.

(continued on page 3)

General Membership Meeting

May 18, 1988

K1IAO called the meeting to order at 7:48 PM with 28 persons present. Harry Jones of Massachusetts Electric Company presented a program titled "A Question of Balance" concerning our electric power sources and future needs. Details of his presentation follow the business meeting minutes.

Scott KA1CLX reported he had been offered three radios for use on our new digipeater.

K1IAO introduced the candidates for office. One candidate for each office had been recommended by the nominating committee. No other nominations were received. A list of candidates was distributed to all members on April 12, 1988. They are Ralph McNall, WB2DCL, President; Andrew L. Morrison, N1BHI, Vice President; Frank P. Morrison, KB1FZ, Secretary; Robert M. Fraser, K1PBL, Treasurer; Barrie L. Brozenske, K3BUZ, Clerk; Alan E. Kunian, KA1AL, Two Year Director; Joseph M. Reinhardt, AF2J, Two Year Director; and Thomas J. Holmes, WA1ZID, One Year Director filling the remaining year of N1BHI's term. This slate of candidates was approved unanimously by the membership and declared elected. In the absence of the newly elected president the new vice president N1BHI assumed control of the meeting. He requested ideas from all members on how to get more people involved in the tasks of running our club.

W1JDO then conducted the raffle. Winners were WA9AMZ, KB1FZ, N1BHA, KA1INO, K1PBL, KA1HNT, WA1ZID, KA1INO, N1FQN, W1QEC, KA1CLX, and W1HIT.

B. L. Brozenske, K3BUZ, *Clerk*

Minutes of Board Meeting

June 22, 1988

WB2DCL called the meeting to order at 7:12 PM with K1PBL, K1IAO, KB1FZ, KA1AL, AF2J, WA1ZID, KA1CLX, and K3BUZ present.

WB2DCL requested budget inputs from all trustees by July 15, 1988. The treasurer was requested to furnish WB2DCL a table of last year's budget vs. actual expenditures.

Discussion followed along the lines of WB2DCL's agenda in the areas of dues for next year, a possible new category of membership, meeting plans for next year, committee suggestions, and the status of

the repeaters. Final action on these items was deferred to following meetings.

The Board approved a proposal to reinstate a donation cup at the meeting refreshment table in an attempt to reduce meeting cost to the treasury.

KA1CLX agreed to work out arrangements for MMRA to support the ARRL New England Convention in Boxboro with talk in and possibly a portable repeater at the convention site. We also want to man a table during the convention with descriptive flyers to attempt to attract new members. Scott also suggested we consider a flea market to raise funds.

KA1AL asked the status of our efforts to get revived as a non-profit corporation. K3BUZ reported that all information was at hand, but eleven forms needed to be filled out before we could apply. We need to complete this action not later than October 1988.

B. L. Brozenske, K3BUZ, *Clerk*

Minutes of Board Meeting

July 27, 1988

The meeting was called to order at 7:10 PM by our president WB2DCL. Also present were K1PBL, K1IAO, KB1FZ, KA1AL, AF2J, WA1ZID, N1BHI, KA1CLX and K3BUZ.

KB1FZ passed out new rosters and announced we had 409 members paid to September 1988. Frank also indicated that W1JDO had brought in ten new members in the past month alone and moved that W1JDO be rewarded with credit for next years dues as a thank you from MMRA. The motion was unanimously approved.

WB2DCL invited the Board to his home to discuss next year's budget on Sunday, August 7, 1988. KB1FZ announced he would not be available due to vacation plans.

KA1CLX announced that the new 61 Marlboro repeater antenna would go up next weekend.

WA1ZID suggested that the Viking Club members might be approached to support the Quincy area repeaters. He agreed to contact some of them to ascertain the level of interest.

After considerable discussion, the board voted to recommend a dues increase for the 1988-1989 membership year. The recommendation agreed upon is \$25 for an individual and \$35 for a family membership. Family membership eligibil-

ity is extended to amateurs in the same family living at the same address.

The Board voted to change the autopatch access codes in September coincident with the start of the membership year.

The Board agreed to recommend that dues be prorated for new members only on the basis of full dues (\$25) in September, October and November; \$20 in December, January, and February; \$15 in March, April, and May; and \$10 in June, July, and August.

K1IAO announced that George Downs, W1CT had become a Silent Key. George was a long term member of MMRA and served as our president in the early 1980's.

N1BHI reported that the controller software had been translated to an IBM compatible format, and that WA1YDL will provide a software development environment allowing the modification of software for the new area code to proceed.

N1BHI also announced that each repeater trustee should renew his coordination with the appropriate coordinator for his band. Andy agreed to provide the proper forms to each trustee.

WB2DCL proposed after considerable discussion that, in addition to the five regular meetings we schedule a flea market in January, a tour of FEMA in Maynard in December, a portable/mobile equipment clinic next Fall and a picnic next August. An effort will be made to hold meetings in areas with high member density. Weston was selected for the September and May meetings with Quincy, Stoneham and Holliston under consideration for the others. Member input is encouraged.

B. L. Brozenske, K3BUZ, *Clerk*

MMRA Officers and Staff

President Ralph I. McNall Jr., WB2DCL
508-366-2404
Vice President Andrew L. Morrison, N1BHI
Secretary Frank P. Morrison, KB1FZ
Treasurer Robert M. Fraser, K1PBL
Clerk Barrie Brozenske, K3BUZ
Directors (1 yr. terms) Thomas Holmes, WA1ZID
Scott R. Bullock, KA1CLX
Directors (2 yr. terms) . . . Alan E. Kunian, KA1AL
Joseph Reinhardt, AF2J
Minuteman Publisher . . . Dave Crocker, W1TMO
617-444-7724
Minuteman Editor Not Yet Filled

Please send editorial contributions to:

MMRA Minuteman
Ralph McNall, WB2DCL
4 Samson Drive, Westboro, MA 01581

Minutes of Board Meeting

September 1, 1988

The meeting was held at the home of our president, WB2DCL, in Westboro. Present were WB2DCL, AF2J, K3BUZ, and WITMO, our newsletter publisher. Absent were KA1AL, KI1AO, N1BHI, KB1FZ, K1PBL, KA1CLX, and WA1ZID. In the absence of the bylaw required five member quorum, no official business could be conducted.

Informal discussions about the newsletter deadline required to reach members before the Wednesday, September 14, 1988 meeting at the Campion Center in Weston revealed the work would have to be done over the Labor Day weekend and the newsletter would have to be mailed first class. WITMO now has all the required inputs on computer discs. Informal discussions concerning the budget and refreshments compliments of Ralph's XYL filled out the evening.

B. L. Brozenske, K3BUZ, *Clerk*

New England Electricity: a Question of Balance

*A Talk by Harry Jones
Massachusetts Electric Company*

Harry Jones' presentation addressed the sources of our electric power; coal, gas, nuclear, hydro, purchases and oil. These sources supply the electric power we use for industry, street lights, commercial and residential purposes. Our economic prosperity in New England is leading to increasing electric power demands. On August 17 and 18, 1987 a heat wave caused a record total demand of 19000 Megawatts, necessitating a 5 percent reduction in line voltage. We are currently buying power from Hydro Quebec at good rates but need to be concerned about the reliability of that source. During cold weather Hydro Quebec has already diverted the power we normally get for its own abnormally high load.

The Rudden report to the New England governors predicts shortages of electric power in the early 1990's. Voltage reductions may be common. Rotating blackouts may be necessary to control demand while still providing heat and refrigeration intermittently to customers. The management of local large employers such as DEC and Raytheon are concerned since new jobs drive electric demand up, yet no new generating plants are being built or planned in Massachusetts.

Meetings for the 1988-1989 Season

— 1988 —

Wed, Sep. 14	Weston	Technical Review & Budget Approval
Sat, Oct. 1 & Sun, Oct. 2	Boxboro	Equipment Clinic
Thu, Oct. 27	TBD	To Be Determined
Tue, Dec. 06	Quincy	MMRA: past, present, and future.

— 1989 —

Sat, Jan. 14	Westboro	Flea Market
Tue, Feb. 28	Stoneham	Stoneham Repeater
Wed, Apr. 12	Holliston	Marlboro/Hopkinton Repeaters
Thu, May, 25	Weston	Elections & . . .
Sat/Sun in Jul or Aug	TBD	Picnic (& Mobile/Portable Equipment Clinic)

Massachusetts' oil usage for electric generation is six times the national average. Massachusetts uses half of the oil used in New England for electric generation. Half the oil consumed in New England is used for electric generation. Half the oil used in New England is imported.

Hydro sites are now fully utilized. Generating plants over 30 years old will be refurbished. Seabrook nuclear plant is planned and needed to provide 5 percent of our needs and Hydro Quebec 10 percent. The Ocean State new technology gas fired plant under construction in Rhode Island is needed by 1991-93 and may be finished in time. The contribution of cogeneration facilities is planned to triple. Electric conservation to limit load growth will have to make up the difference as it takes eight to twelve years to license, site, and build one power plant. 1996 is the earliest a new plant could be available. Conservation now in industry and homes is a high priority. Plants and transmission lines need to be sited NOW. A rational energy policy is needed to preserve the job growth and economic vitality of our region. All our present sources of energy are needed if we are to avoid blackouts in the 1990's.

Copley Place uses as much electricity as the entire city of Chelsea. If Seabrook nuclear power plant were converted to gas it would require as much gas to fuel it as is now used in all of New England. This much gas would probably not be available in winter without major increases in gas facilities in New England, since heating demand currently uses most of the available capacity.

A five percent voltage reduction should not harm any appliances if they are rated for the nominal line voltage. Sometimes problems are experienced with 220 volt appliances operated on 208 volt lines for example, although these appliances may work when the 208 is nominal, damage may occur at a five percent low 198 volts. Power company tolerances normally re-

quire 120/240 plus or minus five percent line voltage.

Radio noise from power lines is often caused by insulators moving with respect to the wire. When these are troublesome they can be located by driving around listening for the loudest effect on an FM radio.

President's Column

(continued from page 1)

September (Budget) Meeting

September is our annual budget meeting. Repeater trustees, or their designees, will be present to defend their budget requests. We will be requesting that members vote to set MMRA dues for the coming year at \$25 to fund the budget as proposed in this newsletter. To the best of my knowledge this is the first request for a dues increase in a number of years.

We have now grown to seven voice repeaters—and shortly our first digital repeater—at six locations around the Greater Boston area. During this time operating and administrative costs have continued to increase. With this requested dues adjustment and a stable or growing membership we will be able to fund some badly needed improvements to our systems.

Committees

This newsletter also contains a list of proposed MMRA committees. They are "proposed" because the extent to which they are effective will depend on your coming forward to fill one of the open positions. So get involved!

One position we urgently need to fill is that of editor. The quality and timeliness of our newsletter depend on our finding an enthusiastic member. While it's not mandatory, it would help if you have a PC or other word processing capability.

The final word is "Status quo is a no-go!"

73's / Ralph - WB2DCL

1988-89 MMRA Budget (\$)

What follows is a proposed budget. The membership is being asked to approve the proposed expenditures and/or others the board determines to be necessary and appropriate for actual income. Members are also being asked to set dues at \$25 in order to fund this budget.

Repeater Site Costs

Description	1987-88		1988-89
	Budget	Actual	Proposed
ELECTRICITY/RENT			
Hopkinton NIBHI 223.94	\$ 0		\$ 0
Marlboro - NIBHI - 146.61	150		300
Marlboro - KA1CLX - 449.925	150		150
Quincy - K1IAO - 146.67 & - WA1ZID 224.40	240		240
Stoneham - NCIU - 146.715	0		0
Weston - KA1AL - 146.82	400		400
Total	\$ 940		\$ 1,090

TELEPHONE

Hopkinton - NIBHI - 223.94	0		180
Marlboro - NIBHI - 146.61	360		360
Marlboro - KA1CLX - 449.925	333		350
Quincy - K1IAO - 146.67 & - WA1ZID - 224.40	300		350
Stoneham - NCIU - 146.715	636		360
Weston - KA1AL - 146.82	706		400
Total	\$ 2,335		\$ 2,000

OTHER COSTS

Marlboro - KA1CLX - 449.925 Electrical Work			225
Total	\$ 0		\$ 225

Subtotal - Site Costs **\$ 3,275** **\$ 3,315**

Repeater Equipment Costs

Description	1987-88		1988-89
	Budget	Actual	Proposed
146.61 - NIBHI - MARLBORO			
Miscellaneous R&M	\$ 300		\$ 200
Preselector (GLB)	150		150
Antenna, repair (Super Stationmaster)			200
VHF Watt/SWR Meter			125
Total	\$ 450		\$ 675
146.67 - K1IAO - QUINCY			
Miscellaneous R&M	\$ 200		\$ 150
Repeater (exciter/receiver)			800
Controller (S Com. 5K or K1BC?)			200
Antenna, repair			200
Total	\$ 200		\$ 1,350

146.715 - NCIU - STONEHAM

Miscellaneous R&M	\$		\$ 200
Receiver Board (SCR200A)	230		
VHF Watt/SWR Meter	116		
Bandpass Cavity (TX-RX Sys.)			130
12 V Power Supply (RS50M)			225
2 M Solid State Power Amp (Mirage B3016)			225
Total	\$ 346		\$ 780

146.82 - KA1AL - WESTON

Miscellaneous R&M	\$ 300		\$ 100
Preselector (GLB)	150		150
Controller (S Com. 5K or K1BC?)			200
Amplifier Tubes (2 x 4CX250)			300
Total	\$ 450		\$ 750

223.94 - NIBHI - HOPKINTON

Miscellaneous R&M	\$		\$ 200
Repeater		200	
Antenna & Hardline		300	
Controller (S Com. 5K or K1BC?)			200
Total	\$ 0	\$ 500	\$ 400

224.40 - WA1ZID - QUINCY

Miscellaneous R&M	\$ 150		\$ 150
Antenna (Austin)			270
Total	\$ 150		\$ 420

449.925 - KA1CLX - MARLBORO

Miscellaneous R&M	\$		\$ 200
Antenna (Super Stationmaster)	400		
Antenna Hardline	300		
PA RF Transistors (3)			120
Preselector/Preamp			120
Total	\$ 700		\$ 440

Digipeater - KA1CLX - MARLBORO

Miscellaneous R&M	\$		\$ 100
Power Supply (RS20M)			110
TNC			200
Total	\$ 0		\$ 410

Sub-Total **\$ 2,296** **\$ 5,225**

Summary of Site/Equipment Costs

Description	1987-88		1988-89
	Budget	Actual	Proposed
Hopkinton - NIBHI - 223.94	\$	\$ 500	\$ 580
Marlboro - NIBHI - 146.61	960		1,335
Marlboro - KA1CLX - 449.925	1,183		1,575
Quincy - K1IAO - 146.67 & - WA1ZID - 224.40	890		2,360
Stoneham - NCIU - 146.715	982		1,140
Weston - KA1AL - 146.82	1,556		1,550
Total - Site/Equipment Costs	\$ 5,571		\$ 8,540

Administration Costs

Description	1987-88		1988-89
	Budget	Actual	Proposed
NEWSLETTER (4 or 5)			
Printing			\$ 800
Mailing			400
Total	\$ 1,000		\$ 1,200
MEETINGS			
Site Fees	\$ 250	\$ 265	\$ 300
Refreshments	156	107	100
Speakers			100
Raffle	375	357	500
Total	\$ 781	\$ 729	\$ 1,000
OTHER ADMINISTRATIVE COSTS			
Insurance	\$ 1,500	\$ 861	\$ 708
President's Expenses (Mailing Candidate List, ...)	100		100
Secretariat Expenses	370		400
Treasurer's Expenses	75		100
Membership Badges			500
CEMARC Membership	100		100
NESMC Membership	0	14	70
Misc. (1/2 year Dues Refunds)	0	50	
Total	\$ 3,926		\$ 4,178
Total - All Costs	\$ 9,497		\$12,718

Income

Description	1987-88		1988-89
	Budget	Actual	Proposed
Members (number)	425	409	500
Dues	\$ 8,500	\$ 7,760	\$11,500
Advertising	0	0	500
Raffles	375	537	500
FleaMarket			1,000
Donations		15	
Miscellaneous (Manuf. Refund)		25	
Total	\$ 8,875	\$ 8,337	\$13,500

Bank Balance

09/01/87	09/01/88
\$ 1,500	\$ 1,836

Help Needed at Boxboro on October 1 & 2

MMRA will be providing communication support for the ARRL New England Division Convention and FleaMarket at the Sheridan Boxboro on Saturday and Sunday, October 1st and 2nd. We will also have a membership table. If you can donate a couple of hours to participate in this MMRA activity please contact Scott Bullock, KA1CLX, at 508-799-6902.

1988 ARRL BOXBORO CONVENTION

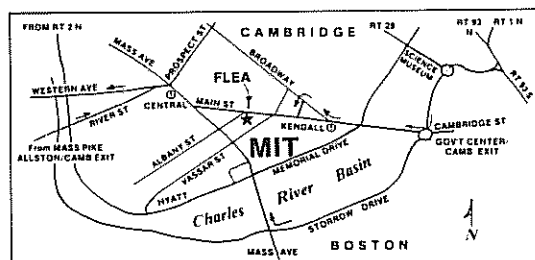


October 1st & 2nd
Boxboro, Massachusetts

See You There!

FALL FLEA at MIT

Sunday, September 25, 1988
9 am to 4 pm



Albany and Main Streets
Cambridge, Massachusetts

Have We Got Batteries!

On Sunday, September 4th, W1TMO and WB2DCL (and one of his harmonics) journeyed in the rain to Cambridge. Once there they salvaged seven 6V, 100 AHr batteries as the last remnants of the Dorm Line phone system in MIT's Ashdown House. These batteries became surplus as MIT retired the step-by-step switching system that had served the dormitories for many years. MIT recently cut the dorm phones to their new AT&T #5ESS digital switch—with the remainder of the campus scheduled to cut in October.

We want to thank Ross Snyder, N0GSZ, of Dorm Line and of the MIT Radio Society/UHF Repeater Association for his assistance in obtaining these batteries. They will be used to provide emergency power at several of our repeater sites.

REVERSING THE 220 DECISION

Hurb Ingles WA1SSD

It was on August 4th the FCC had ruled that 220-222 Mhz will be reallocated to a new business radio service. The threat to Amateur radio did not, and will not end with 220-222 Mhz. 13cm, 23cm, 70 cm, 6 meters, and 160 meters are already targeted. Based on the criterion that the FCC used to justify taking 220-222 Mhz we could lose every amateur frequency above 28 Mhz that did not show repeater usage in the ARRL Repeater Directory.

Across all amateur bands the mood is a combination of anger and frustration (save the occasionally ill informed HAM who says, "I don't use it anyway"). Let's focus the anger and get the full amateur community out to support legislative action to stop future infringement of our bands. The first step will be to support House Concurrent Resolution 317 and Senate Concurrent Resolution 127. This joint resolution will encourage government agencies to avoid action that would reduce amateur radio frequency allocations. The passage of this resolution will be a strong weapon to help fight off future threats.

Send letters and/or QSL cards to your congressional delegation. Send them to EVERY Senator or Congressman you can think of! The letters should explain WHY amateur radio is truly "in the public interest". Stress technical advances, international good will, community activities, FREE national/international emergency communications and how this is more important than a new system for UPS's to track boxes minute to minute! On the QSLs simply write "Support House(Senate) Concurrent Bill 317(127)". I did both in July and have received responses from Congressmen Chester Atkins, Edward Markey and John Joseph Moakley to date.

The ARRL is requesting that in addition to the letters on resolution 317/127 that additional letters be written to specific legislators. Rep. Ed Markey, Rep. John Dingell, and Senators Ernest Hollings and Daniel Inouye. They should be asked to support legislation that would return 220-222Mhz to the allocations of August 3rd, that is the day BEFORE the FCC action!

Next let's tie up the FCC administratively. N6BVU is providing full information on filling Petitions for Reconsideration. These petitions must be considered individually by the FCC, unlike the comments which can be answered collectively. Send a SASE to N6BVU, Karl Pagel, P.O. Box 6490, Orange, Ca. 92613 for the "how to" worksheet.

In a separate letter to each of the congressional delegation, you may also ask Congress to follow thru on it's potential investigation of the FCC's O.E.T. on allegations that the FCC was "bought out" by UPS on this issue. Also, the ARRL is planning possible court action, and is now looking at the FCC as hostile to amateur interests (an indication of the loss of the TRUST the League once had in the FCC are that words like "battle" and "war" now being used by the League President). All this is to reverse the decision of August 4th.

One last thing. Don't forget an appeal to the President! The FCC is an executive branch agency.

President of the United States
The White House, Washington, D.C. 20500

Greater Boston Area Congressional Delegation

U.S. House of Representatives Washington, D.C. 20515

Chester Atkins			202-225-3411
134 Middle Street	Lowell	01853	459-0101
			800-831-3125

Brian J. Donnelly			
2307 JFK Federal Bldg	Boston	02203	565-2910
47 Washington Street	Quincy	02169	472-1800

Barney Frank			
437 Cherry Street	W. Newton	02165	332-3920

Joseph P. Kennedy, III			
Thomas P. O'Neill Jr.			
Federal Building			
10 Causeway Street	Boston	02114	565-8686

Edward J. Markey			202-226-2424
2100A JFK Federal Bldg	Boston	02203	565-2900

John Joseph Moakley			202-225-8273
World Trade Center	Boston	02210	565-2920
4 Court Street	Taunton	02780	824-6676

Nickolas Mavroules			
140 Union Street	Lynn	01901	599-7105
10 Welcome Street	Haverhill	01830	372-3461
			800-272-6730

Thomas P. O'Neill, Jr.			
2200A JFK Federal Bldg	Boston	02203	565-4000

U.S. Senate Washington, D.C. 20510

Edward M. Kennedy			202-224-4543
2400 JFK Federal Bldg	Boston	02203	565-3170

John F. Kerry			
Room 320			
Transportation Building			
10 Park Place	Boston	02130	565-8519

U.S. House of Representatives Committee on Energy and Commerce Subcommittee on Telecommunications and Finance

Ed Markey, MA, Chairman

Al Swift, WA	Wayne Dowdy, MS	Bill Richardson, NM
Mickey Leland, TX	Jim Slattery, KS	Rick Boucher, VA
Cardiss Collins, IL	John Bryant, TX	Jim Cooper, TN
Carlos Moorhead, CA	Thomas Tauke, IA	Don Ritter, PA
Mike Synar, OK	Ralph Hall, TX	John Dingell, MI
W.J. Tauzan, LA	Dennis Eckart, OH	Matthew Rinaldo, NJ
Jack Fields, TX	Michael Oxley, OH	Howard Nielson, UT
Dan Coats, IN	Thomas Bliley, VA	Norman Lent, NY

MMRA Committees

NOMINATING

—OPEN—	Chair
—OPEN—	2nd member
—OPEN—	3rd member

NEWSLETTER

—OPEN—			Editor
Dave Crocker	W1TMO	617-444-7020	Publisher
—OPEN—			Advertising

MAILINGS

Frank Morrison	KB1FZ	508-443-6047	Acting Chair
Stewart Johnson	W1UVE	617-269-7300	

MEMBERSHIP

Frank Morrison	KB1FZ	508-443-6047	Acting Chair
—OPEN—			Publicity
—OPEN—			Membership Badges
—OPEN—			ARRL Membership
—OPEN—			Membership Survey

MEMBER ACTIVITIES

Ralph McNail	WB2DCL	508-366-2404	Acting Chair
—OPEN—			Meeting Programs
—OPEN—			Refreshments
—OPEN—			Raffles
—OPEN—			Raffle Ticket Sales
Bob Fraser	K1PBL	617-259-9032	September
			Membership Meeting
Scott Bullock	KA1CLX	508-799-6902	Boxboro Chair
Joseph Reinhardt	AF2J	508-263-2336	October Meeting
Thomas Holmes	WA1ZID	617-961-3156	Dec. Quincy Meeting
Andrew Morrison	N1BHI	508-481-3878	Jan. FleaMarket Chair
Scott Bullock	KA1CLX	508-799-6902	Jan. FleaMarket Co-Chair
—OPEN—			Feb. Stoneham Meeting
Al Kunian	KA1AL	508-429-2906	April Holliston Meeting
Frank Morrison	KB1FZ	508-443-6047	May Membership Meeting
Barrie Brozenske	K3BUZ	508-443-5991	Picnic, Acting Chair
—OPEN—			Xmas Party
—OPEN—			Appreciation Banquet
Bob Fraser	K1PBL	617-259-9032	Fund Raising, Acting Chair

PUBLIC SERVICE

Andrew Morrison	N1BHI	508-481-3878	Acting Chair
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TECHNICAL

Scott Bullock	KA1CLX	508-799-6902	Chair
Andrew Morrison	N1BHI	508-481-3878	Controller Subcom. Chair
Robert Clements	K1BC		Controller Subcommittee
Joseph Reinhardt	AF2J	508-263-2336	
Peter Barmakian	WB1AKB	617-259-9886	

BYLAWS

Alan Kunian	KA1AL	508-429-2906	Acting Chair
Andrew Morrison	N1BHI	508-481-3878	

OPERATING PRACTICES

Frank Morrison	KB1FZ	508-443-6047	Acting Chair
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146.61 MARLBORO REPEATER

Andrew Morrison	N1BHI	508-481-3878	Trustee
Frank Hilbrunner	W1JDO		Control Operators
Scott R. Bullock	KA1CLX		
Gerald J. McGarry	KA1OUI		
Frank P. Morrison	KB1FZ		
Barrie Brozenske	K3BUZ		
Ralph McNail	WB2DCL		
Andrew Morrison	N1BHI		Technical Support
Scott R. Bullock	KA1CLX		

146.67 QUINCY REPEATER

Hazen Saltmarsh	K1IAO	617-326-6179	Trustee
John Morrison	WA1UVR		Control Operators
Francis Molloy	W1DWI		
George Foley	W1IC		
F. Weldell Boyden Jr.	K1LWI		
George Manning	K1CCC		
Arthur Toneatti Jr.	W1ZOC		
Donald Mofford	WA1WDQ		
Thomas Holmes	WA1ZID		
Mike Landis	KA1HKP	NOT current (85)	Technical Support

146.715 STONEHAM REPEATER

Peter Bongiorno	NC1U	617-246-1995	Trustee
Leo Morgan	K1LRX		Control Operators
John Morley	KA1JMF	87	
Patricia Tauro	N1AOJ		
Tony Tauro	KA1OP		
John Morley	KA1JMF		Technical Support

146.82 WESTON REPEATER

Alan Kunian	KA1AL	508-429-2906	Trustee
Frank Hilbrunner	W1JDO		Control Operators
Robert G. Ling	W1IBF		
Richard C. Mullen	N1CRC		
Gerald A. Horne	K1GOI		
Paul J. Planchet	WA1DXI		
Paul Dosorey	N1CKA		
Alan Kunian	KA1AL	508-429-2906	Technical Support

223.94 HOPKINTON REPEATER

Andrew Morrison	N1BHI	508-481-3878	Trustee
			Control Operators
Andrew Morrison	N1BHI		Technical Support

224.40 QUINCY REPEATER

Thomas Holmes	WA1ZID	617-961-3156	Trustee
Arthur Toneatti Jr.	W1ZOC		Control Operators
Donald Mofford	WA1WDQ		
Thomas Holmes	WA1ZID		Technical Support

449.925 MARLBORO REPEATER

Scott Bullock	KA1CLX	508-799-6902	Trustee
Frank Hilbrunner	W1JDO		Control Operator
Scott R. Bullock	KA1CLX		Technical Support

MINUTEMAN REPEATER ASSOCIATION, INC.

Box 2282 - Lexington, MA 02173

A non-profit Communications Organization Serving the Public in Time of Emergency

— Application for Membership —

☐ Individual Membership (Dues: \$25 per year)

☐ Family Membership (Dues: \$35 per year)
(list names of other members below)

I hereby apply for membership in the MINUTEMAN REPEATER ASSOCIATION, INC. I agree to abide by the rules and regulations of the Association as stated in its By-Laws, and understand that acceptance of this application entitles me to all rights and privileges of membership as provided for by the By-Laws.

Signature _____ Date _____

Please print or type the following:

NAME _____ CALL _____

NAME USED ON THE AIR _____ CLASS OF AMATEUR LICENSE _____

HOME ADDRESS _____
Street City and State Zip code

HOME TELEPHONE _____ WORK TELEPHONE _____

OCCUPATION _____ EMPLOYER _____

MEMBER OF: ARRL? _____ OR OTHER REPEATER GROUP? (Name) _____

EQUIPMENT AVAILABLE FOR YOUR USE: (How many? What type? What modes?)

Type	No.	Mobile	Portable	Fixed	Touch Tone	FM	SSB	Packet	CW	Patch	RTTY	ATV
HF	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VHF	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
UHF	_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I can, and am willing to, assist/serve the Association and/or to maintain the Repeaters in the following ways: (Check appropriate box).

<input type="checkbox"/> Antenna	<input type="checkbox"/> Flea Market	<input type="checkbox"/> Public Service	<input type="checkbox"/> Equipment Transportation
<input type="checkbox"/> Receiver	<input type="checkbox"/> Legal Aid	<input type="checkbox"/> Education: <input type="checkbox"/> CW <input type="checkbox"/> Theory	<input type="checkbox"/> Technical Documentation
<input type="checkbox"/> Transmitter	<input type="checkbox"/> Refreshment	<input type="checkbox"/> Medical Aid	<input type="checkbox"/> Schematic Drawings
<input type="checkbox"/> Logic	<input type="checkbox"/> News Letter	<input type="checkbox"/> Meeting Set-up	<input type="checkbox"/> Technical Committee Repeater _____
<input type="checkbox"/> Telephone	<input type="checkbox"/> Special Projects	<input type="checkbox"/> Building Construction	<input type="checkbox"/> Control Operator Repeater _____
<input type="checkbox"/> Publicity	<input type="checkbox"/> Association Officer	<input type="checkbox"/> Equipment Construction	<input type="checkbox"/> Board of Directors

Minuteman Repeaters: Marlboro/146.61 Quincy/146.67 Stoneham/146.715 Weston/146.82 Hopkinton/223.94 Quincy/224.40 Marlboro/449.50

MMRA

Minuteman Repeater Association, Inc.
P.O. Box 2282
Lexington, Massachusetts 02173



First Class